Message

From: King, Amy [amy.king@tetratech.com]
Sent: 10/3/2018 4:20:48 AM
To: Hodgkiss, Miranda [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=9d441ddb44ac4ed486058d2c2690b977-Hodgkiss, Miranda]
CC: Schmidt, Michelle [Michelle.Schmidt@tetratech.com]; Carlin, Jayne [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=d8fb65515e114f0c9a07cf1a9796132f-Carlin, Jayne]
Subject: RE: Deschutes modeling supplemental info

Thank you!

From: Hodgkiss, Miranda <Hodgkiss.Miranda@epa.gov>
Sent: Tuesday, October 02, 2018 3:29 PM
To: King, Amy <amy.king@tetratech.com>
Cc: Schmidt, Michelle <Michelle.Schmidt@tetratech.com>; Carlin, Jayne <Carlin.Jayne@epa.gov>
Subject: Deschutes modeling supplemental info

Hi Amy,

I was going through some emails and came across this information I received from Leanne. I thought it might be useful as you and Michelle are looking at their past modeling work. She has some notes on the Supplemental Monitoring Report, and some attachments.

Thanks,

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- Here is a link to the 2015 Supplemental Monitoring Report.
  https://fortress.wa.gov/ecy/publications/documents/1503002.pdf
    - This is the most publication we've published using the model. However, we've come a long way since then. For example, we've included some averaging of model cells during post processing and also added a sediment diagenesis module to the model. The result of these two additions indicates that under natural conditions water quality standards can be met. The 2015 report was written under the assumption that they could not be and therefore applies a 0.2 mg/l allowable DO deficit as the standard. The final TMDL will apply the 5/6 mg/l standard.
        - I've attached a memo describing our cell aggregation techniques and reasoning for it. Chris and Laurie reviewed this at some point.
    - Regardless of what I've described above, the 2015 report has lots of useful information. Here are some sections I recommend reading:
        - Page 11 Introduction (describing the interim nature of the report)
        - Page 12 – 20 (describing the watershed, DO/nutrient/circulation patterns, and the standards and how they apply)

- Page 21 – 28 (methods, Ecology's robust peer review process, the model, scenarios, how we defined natural conditions)
- Despite the updates made to the model and post processing the figures provided in the results section of the report still tell a very relevant story. The exact numbers and scale bars have/will get updated but the theme are all the same. The results on the effect of Capitol Lake (page 33 – 39) provides a great summary. I have attached updated maps of results for the four main sources of DO depletion to Budd Inlet.